

### *ABSTRACT*

A high performance stator device is used to a stator device of an electromotive machine or a generator. The stator portion of an electromotive machine or a generator is provided with a plurality of coils. The wire head and wire tail of each coil are independent. Various coils are connected through a switch control system. Then the connected stator has a single phases or three phases network forms. Through the control of a switch control system, the numbers of windings of the stator portion can have various forms. The change of the number of windings may change the inverse electromotive force  $K_E$  and twisting force constant  $K_T$ . In the low, middle, and high operation ranges, the electromotive machine or generator may retain average high operation efficiency. Moreover, the  $K_T$  is increased greatly, since  $T = K_T \cdot I$ , so the output twisting force has various forms.